

July 31, 2006

L-PI-06-064 10 CFR 50.73

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U S Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555-0001

Prairie Island Nuclear Generating Plant Unit 1 Docket 50-282 License No. DPR-42

#### LER 1-06-01, Unit 1 Reactor Trip, Supplement 1

Supplement 1 to the Licensee Event Report (LER) for this occurrence is attached. Nuclear Management Company, LLC (NMC) notified the NRC of this event, as required by 10 CFR 50.72(b)(2)(iv)(B) and 10 CFR 50.72(b)(3)(iv)(A), on April 14, 2006. The original LER was submitted on June 13, 2006. This supplement incorporates the results of NMC's root cause evaluation of this event. Please contact us if you require additional information related to this event.

### **Summary of Commitments**

This letter contains no new commitments and no revisions to existing commitments. This letter completes the commitment made in the original LER to submit a supplement to this LER after the associated root cause evaluation was completed.

Thomas J. Palmisano

Site Vice President, Prairie Island Nuclear Generating Plant

Nuclear Management Company, LLC

Enclosure

cc: Administrator, Region III, USNRC

Project Manager, Prairie Island, USNRC Resident Inspector, Prairie Island, USNRC

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1E22 Se'd 12/4/06 M. Chawla

# **ENCLOSURE**

LICENSEE EVENT REPORT 1-06-01, Supplement 1

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NRC FORM							APPROVED BY OMB NO. 3150-0104					EXPIRES 6-30-2007			
COMMISSION (6-2004)  LICENSEE EVENT REPORT (LER)  (See reverse for required number of digits/characters for each block)								Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0066), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.							
FACILITY NAME (1)								DOCKET NUMBER (2)					PAGE (3)		
Prairie Island Nuclear Generating Plant Unit 1								05000 282				1 of 3			
TITLE (4)														-	
Unit 1 Reactor Trip															
EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)				OTHER FACILITIES INVOLVED (8)					
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								D PURSUANT TO THE REQUIREMENTS OF 10 CFR 9: (Check all that apply) (11)							
MODE (9)			20.2201(b)			20.22	20.2203(a)(3)(ii)			50.73(a)(2)(ii)(B)		50.73(a)(2)(ix)(A)			
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#### ABSTRACT

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YES (If yes, complete EXPECTED SUBMISSION DATE).

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SUPPLEMENTAL REPORT EXPECTED (14)

On April 14, 2006, Prairie Island Nuclear Generating Plant (PINGP) Unit 1 was operating at 100% power. At approximately 1425 CDT, an 11 FEEDWATER PUMP LOCKED OUT annunciator was received in the control room. Unit 1 operators responded per the alarm response procedure and manually tripped the reactor. The trip was uncomplicated and all systems operated as expected and operator response and recovery actions were as expected.

X NO

EXPECTED

SUBMISSION

**DATE (15)** 

MONTH

DAY

YEAR

Initial investigation of the cause of the 11 Feedwater Pump trip determined the feedwater pump tripped because the 11 Condensate Pump had tripped. The 11 Condensate Pump motor was shipped off site for repairs and the stator windings were found to have grounded. The root cause evaluation (RCE) of this event determined the condensate pump trip was caused by degraded motor insulation due to aging and environmental conditions. The RCE further determined that the organizational root cause of the condensate pump motor trip was a lack of an adequate long range planning and budgeting process to prioritize and budget large motor maintenance.

#### NRC FORM 366A U.S. NUCLEAR REGULATORY COMMISSION (1-2001)LICENSEE EVENT REPORT (LER) **TEXT CONTINUATION** FACILITY NAME (1) DOCKET NUMBER (2) LER NUMBER (6) PAGE (3) SEQUENTIAL REVISION YEAR 2 of 3 Prairie Island Nuclear Generating Plant Unit 1 05000282 NUMBER NUMBER 06 01 1

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

#### **EVENT DESCRIPTION**

On April 14, 2006, Prairie Island Nuclear Generating Plant (PINGP) Unit 1 was operating at 100% power. At approximately 1425 CDT, an 11 FEEDWATER<sup>1</sup> PUMP<sup>2</sup> LOCKED OUT annunciator was received in the control room. Unit 1 operators responded per the alarm response procedure and manually tripped the reactor. The auxiliary feedwater<sup>3</sup> pumps started automatically in response to the low narrow range steam generator level, which was caused by shrink resulting from the reactor trip. The trip was uncomplicated and all systems operated as expected and operator response and recovery actions were as expected.

#### **EVENT ANALYSIS**

The trip of the Unit 1 reactor and the actuation of the auxiliary feedwater system are required to be reported per 10 CFR 50.73(a)(2)(iv)(A).

## Impact on Safety System Functional Failure Performance Indicator

The affected condensate and feedwater pumps have no active safety function. All other systems performed as expected during the event. Therefore, this event does not represent a loss of safety function. Consequently, this event is not reportable per 10CFR 50.73(a)(2)(v).

#### SAFETY SIGNIFICANCE

The plant was stabilized in Mode 3 after the trip with all systems performing as expected in response to the reactor trip. Therefore, this event did not affect the health and safety of the public.

#### CAUSE

Initial investigation of the cause of the 11 Feedwater Pump trip determined the feedwater pump tripped because the 11 Condensate Pump had tripped. Troubleshooting identified the cause of the condensate pump trip to be a ground between the 11 Condensate<sup>4</sup> Pump and Bus 13. The condensate pump motor was determinated and a zero ohm ground was measured on the motor. The motor was shipped off site for repairs and the stator windings were found to have grounded.

<sup>&</sup>lt;sup>1</sup> EIIS System Code: SJ

<sup>&</sup>lt;sup>2</sup> EIIS Component Identifier: P

<sup>&</sup>lt;sup>3</sup> EIIS System Code: BA

<sup>&</sup>lt;sup>4</sup> EllS System Code: SD

#### NRC FORM 366A U.S. NUCLEAR REGULATORY COMMISSION (1-2001)LICENSEE EVENT REPORT (LER) **TEXT CONTINUATION** FACILITY NAME (1) DOCKET NUMBER (2) LER NUMBER (6) PAGE (3) SEQUENTIAL REVISION YEAR 05000282 3 of 3 Prairie Island Nuclear Generating Plant Unit 1 NUMBER NUMBER 06 01

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

NMC conducted a root cause evaluation (RCE) and determined that the equipment cause of the condensate pump motor trip was degraded motor insulation due to aging and environmental conditions. The RCE further determined that the organizational root cause of the condensate pump motor trip was a lack of an adequate long range planning and budgeting process to prioritize and budget large motor maintenance.

### **CORRECTIVE ACTION**

#### Interim Actions:

1. NMC performed a baseline off-line monitoring for Unit 1 large balance of plant motors in the May 2006 (1R24) refueling outage. All data was in acceptable ranges.

#### Planned Actions:

- 2. Rewind all Unit 1 and Unit 2 condensate pump motors with Class F insulation.
- 3. Develop a Large Motor Plan for Prairie Island that includes frequency and scope of testing, preventative maintenance and frequency of major maintenance activities.
- 4. Revise long range plan and budgets to include major maintenance activities.
- 5. Investigate trip logic for the condensate pumps to determine the feasibility of modifying the logic to prevent a unit trip following a condensate pump trip.

#### PREVIOUS SIMILAR EVENTS

Both Unit 1 and Unit 2 have experienced unplanned reactor trips in the past, however, the most recent unplanned reactor trip of either unit occurred in 2002.